WHAT IS CLAIMED IS:

1. A support for a lithographic printing plate, wherein surface area ratios obtained from three-dimensional data which can be found by measuring 512 x 512 points in 50 μm square on the surface with an atomic force microscope meets the following requirements (1-i) to (1-iii):

(1-i) A surface area ratio $\Delta S^{50(50)}$ is 20 to 90%,

(1-ii) A surface area ratio $\Delta S^{50(2-50)}$ is 1 to 30%, and

(1-iii) A surface area ratio $\Delta S^{50(0.2-2)}$ is 5 to 40%,

where, $\Delta S^{50(50)}$ is the surface area ratio which can be obtained by the following equation from an actual area S_x^{50} obtained by a three-point estimate from the three-dimensional data and a geometrically measured area S_o^{50},

$$\Delta S^{50(50)} = [(S_x^{50} - S_o^{50}) / S_o^{50}] \times 100 \ (\%) \quad (1\text{-}1)$$

$\Delta S^{50(2-50)}$ is the surface area ratio obtained after extracting components with wavelength of 2 μm or more and 50 μm or less from the three-dimensional data, and $\Delta S^{50(0.2-2)}$ represents the surface area ratio obtained after extracting components with wavelength of 0.2 μm or more and 2 μm or less from the three-dimensional data.

2. The support for the lithographic printing plate according to claim 1, wherein the number of recesses of 4 μm or deeper existing on the surface is 10 or less per 400 μm x 400 μm, and the number of recesses of 3 μm or deeper existing on the surface is 30 or less per 400 μm x 400 μm.

3. A support for a lithographic printing plate, wherein a surface area ratio and steepness which can be found by three-dimensional data from a three-point estimate which can be found by measuring 512 x 512 points in 50 μm square on the surface with an atomic force microscope meet the following requirements (2-i) to (2-ii):

(2-i) A surface area ratio $\Delta S^{50(50)}$ is 30 to 60%, and

(2-ii) A steepness $a45^{50(0.2-2)}$ is 5 to 40%,

where, $\Delta S^{50(50)}$ is the surface area ratio which can be found by the following equation (2-1) from an actual area S_x^{50} and a geometrically measured area S_o^{50},

$$\Delta S^{50(50)} = (S_x^{50} - S_o^{50}) / S_o^{50} \times 100 \ (\%) \quad (2\text{-}1)$$

the steepness $a45^{50(0.2-2)}$ is the area ratio of an area of gradient 45° or more in the data obtained after extracting components with wavelength of 0.2 μm or more and 2 μm or less from the three-dimensional data.

4. The support for the lithographic printing plate according to claim 3, wherein a surface area ratio and a steepness which can be found from three-dimensional data obtained by measuring 512 x 512 points in 5 μm square on the surface with an atomic force microscope meet the following requirements (3-i) to (3-ii):

(3-i) A surface area ratio $\Delta S^{5(0.02-0.2)}$ is 30 to 60%, and

(3-ii) A steepness $a45^{5(0.02-0.2)}$ is 10 to 40%,

where, $\Delta S^{5(0.02-0.2)}$ can be found by the following equation (3-1) from an actual area ratio $\Delta S_x^{5(0.02-0.2)}$ which can be found by a three-point estimate from data obtained after extracting components with wavelength of 0.02 μm or more and 0.2 μm or less and a geometrically measured area S_o^5, and the steepness $a45^{5(0.02-0.2)}$ is the area ratio of an area of gradient 45° or more in the data obtained after extracting components with wavelength of 0.02 μm or more and 0.2 μm or less from the three-dimensional data as shown below.

$$\Delta S^{5(0.02-0.2)} = (S_x{}^{5(0.02-0.2)} - S_o^5)/S_o^5 \times 100\ (\%) \quad (3\text{-}1)$$

5. The support for the lithographic printing plate according to claim 3 or 4, wherein the number of recesses

of 4 μm or deeper existing on the surface is 6 or less per 400 μm x 400 μm.

6. A support for a lithographic printing plate, wherein surface area ratios obtained from three-dimensional data which can be found by measuring 512 x 512 points in 5 μm square on the surface with an atomic force microscope meets the following requirements (4-i) to (4-iii):

(4-i) A surface area ratio $\Delta S^{5(5)}$ is 20 to 90%,

(4-ii) A surface area ratio $\Delta S^{5(0.2-5)}$ is 5 to 40%, and

(4-iii) A surface area ratio $\Delta S^{5(0.02-0.2)}$ is 15 to 70%,

where, $\Delta S^{5(5)}$ is a surface area ratio which can be found and expressed by the following equation (4-1) using an actual area S_x^5 obtained from a three-point estimate from the three-dimensional data and a geometrically measured area S_o,

$$\Delta S^{5(5)} = [(S_x^5 - S_o)/S_o] \times 100 \ (\%), \quad (4\text{-}1)$$

$\Delta S^{5(0.2-5)}$ is a surface area ratio found and expressed by the following equation (4-2) using an actual area $S_x^{5(0.2-5)}$ obtained after extracting components of wavelength of 0.02 μm or more and 0.2 μm or less from the three-dimensional data and a geometrically measured area S_o,

$$\Delta S^{5(0.2-5)} = [(S_x^{5(0.2-5)} - S_o)/S_o] \times 100 \ (\%) \quad (4-2)$$

and $\Delta S^{5(0.02-0.2)}$ is a surface area ratio found and expressed by the following equation (4-3) using an actual area $S_x^{5(0.02-0.2)}$ obtained after extracting components of wavelength of 0.02 μm or more and 0.2 μm or less from the three-dimensional data and a geometrically measured area S_o as shown below.

$$\Delta S^{5(0.02-0.2)} = [(S_x^{5(0.02-0.2)} - S_o)/S_o] \times 100 \ (\%) \quad (4-3)$$

7. The support for the lithographic printing plate according to claim 6, wherein the support can be obtained by performing graining on the surface of an aluminum alloy plate containing Cu content of 0.00 to 0.05 wt%.

8. The support for the lithographic printing plate according to claim 6 or 7, wherein mean roughness R_a measured by contact stylus type surface roughness meter is 0.40 to 0.70.

9. The presensitized plate comprising the support for the lithographic printing plate according to any one of claim

1, and an image recording layer provided on the support for the lithographic printing plate.

10. The presensitized plate comprising the support for the lithographic printing plate according to claim 2, and an image recording layer provided on the support for the lithographic printing plate.

11. The presensitized plate comprising the support for the lithographic printing plate according to claim 3, and an image recording layer provided on the support for the lithographic printing plate.

12. The presensitized plate comprising the support for the lithographic printing plate according to claim 4, and an image recording layer provided on the support for the lithographic printing plate.

13. The presensitized plate comprising the support for the lithographic printing plate according to claim 5, and an image recording layer provided on the support for the lithographic printing plate.

14. The presensitized plate comprising the support for the

lithographic printing plate according to claim 6, and an image recording layer provided on the support for the lithographic printing plate.

15. The presensitized plate comprising the support for the lithographic printing plate according to claim 7, and an image recording layer provided on the support for the lithographic printing plate.

16. The presensitized plate comprising the support for the lithographic printing plate according to claim 8, and an image recording layer provided on the support for the lithographic printing plate.